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Remarks

Claims 1 - 22 remain pending in the application. Claims 1, 3, 4, 9 - 11, 17 - 20 and 22 are amended.

Drawings Objections

The drawings are objected to under 37 C.F.R. 1.83(a). New Drawing Sheet 6/6 adding Figures 16 - 19 is submitted. No new matter has been added. Withdrawal of the objection is respectfully requested.

Figure 11 is objected to under 37 C.F.R. 1.84(p)(4). Replacement Sheet 4/5 with Figure 11 is submitted with this response. The Replacement Sheet 4/5 with Figure 11 deletes reference character 100 in Figure 11 and replaces reference character 100 with reference character 102. No new matter has been added and withdrawal of the objection is requested.

Figure 2 is objected to under 37 C.F.R. 1.84(p)(5) for having a reference character not mentioned in the specification. Reference character "b" is added to the specification. No new matter has been added and withdrawal of the objection is requested.

Specification Objections

The disclosure is objected to because of formalities. Appropriate amendments to the specification are made. Therefore, withdrawal of the objections is requested.

Claim Objections

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Claims 1 – 22 are objected to because of informalities. Appropriate amendments are made to the claims. Therefore withdrawal of the objections is respectfully requested.

Claim Rejections – 35 U.S.C. § 112

Claim 22 is rejected under 35 U.S.C. §112 for insufficient antecedent basis. The claim is amended to provide proper antecedent basis. As such, withdrawal of this rejection is respectfully requested.

Claim Rejections – 35 U.S.C. § 102

The Office Action rejects claims 1, 3, 11, 13, 16, 18 and 20 – 22 under 35 U.S.C. § 102 as anticipated by Samson et al., Kink Resistant Braided Catheter With Distal Side Holes, U.S. Patent 5,782,811 (Jul. 21, 1998). The Applicant respectfully traverses the rejection.

The claim limitations of claims 1, 3, 11, 13, 16, 18 and 20 – 22 as amended include, *inter alia*, a plurality slots wherein each slot is narrower in a first direction as compared to a second direction as well as a tube that is increasingly flexible in the direction of the distal end of the tube. Samson fails to disclose slots wherein each slot is narrower in a first direction as compared to a second direction and a tube that is increasingly flexible in the direction of the distal end of the tube as claimed by the Applicant. Samson simply discloses the use of orifices indicated by item number 269. (Col. 11, Lines 59 – 61, Figure 1 and 7). The construction of the orifices used in Samson is not discussed and the orifices are illustrated as round holes. Furthermore, Samson makes no mention of an increasingly flexible tube as claimed by the Applicant. In

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contrast to Samson, the Applicant claims a plurality slots wherein each slot is narrower in a first direction as compared to a second direction as well as a tube that is increasingly flexible in the direction of the distal end of the tube. Since Samson fails to disclose at least one claim limitation found in the Applicants claims as amended, Samson does not anticipate the Applicants claimed invention. Therefore, withdrawal of this rejection is respectfully requested.

Claim Rejections - 35 U.S.C. § 103

The Office Action rejects claims 1, 3, 11, 13, 16, 18 and 20 - 22 under 35 U.S.C. § 103 as obvious over Bruce, Flexible Inflow/Outflow Cannula, U.S. Patent 5,527,276 (Jun. 18, 1996) in further view of Clement, Medical Device Valving Mechanism, U.S. Patent 5,203,769. The Applicant respectfully traverses the rejection.

Neither Clement nor Bruce teach or suggest use of slots wherein each slot is narrower in a first direction as compared to a second direction. Clement and Bruce merely disclose the use of round or circular apertures. In contrast to round or circular apertures, the Applicant claims slots wherein each slot is narrower in a first direction as compared to a second direction. The use of specifically shaped slots as claimed by the Applicant offers an unappreciated advantage over the combination of Samson and Bruce. The slots as claimed are a patentable improvement over the Bruce device since their specific use increases the flexibility of the distal portion of the cannula and relieves stress on the distal portion of the cannula when the cannula is bent. The slots being narrower in a first direction as compared to a second direction increase the

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resistance of the cannula to kinking or collapsing as well. Furthermore, neither Clement nor Bruce teach or suggest use of **staggered rows**. The openings shown in Clement and Bruce are all aligned with one another in adjacent rows.

Claims 1, 3, 6, 8, 11 and are rejected under 35 U.S.C. § 103 as unpatentable over Bruce and Clement in further view of Theeuwes et al., Regulation of Drug Delivery Through Flow Diversion, U.S. Patent 6,638,263 (Oct. 28, 2003) under the assertion that Bruce and Clement teach or suggest the Applicant's claimed invention except for circumferentially ridges and would have been obvious to one of ordinary skill to provide circumferential ridges as taught by Theeuwes. The Applicant respectfully traverses this rejection.

Bruce and Clement fail to teach or suggest use of slots that are narrower in a first direction as compared to a second direction as previously discussed. Theeuves also fails to teach or suggest use of slots that are narrower in a first direction as compared to a second direction or placing the slots in staggered rows. The combination also fails to teach or suggest the use of staggered rows. In contrast, the Applicant now claims slots that are narrower in a first direction as compared to a second direction. Furthermore, the Applicant claims that the rows are staggered. None of the openings disclosed in the combination of Bruce, Clement and Theeuves are staggered. Since, the combination of Bruce, Clement and Otts fails to teach or suggest the Applicant's invention as claimed, the combination does not render obvious the Applicant's claimed invention. Therefore, withdrawal of this rejection is respectfully requested.

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Claims 4, 9 and 19 are rejected under 35 U.S.C. § 103 as unpatentable over Bruce and Clement in further view of Ott, Perforated Trocar Sleeve and Method of Use, U.S. Patent 6,733,479 (May 11, 2004) under the assertion that Bruce and Clement teach or suggest the Applicant's claimed invention except for circumferentially oriented slots and would have been obvious to one of ordinary skill to substitute the slots of Bruce with the circumferentially oriented slots as taught by Ott. The Applicant respectfully traverses this rejection.

Ott's abstract explicitly states "The openings may be spaced randomly or regularly" and "may vary in size along the length of the body member." Ott fails to teach or suggest a specific type of opening or a specific manner of orientation for its openings. In contrast, the Applicant now more particularly claims wherein slots that are narrower in a first direction as compared to a second direction. Furthermore, the Applicant claims that the rows are staggered. None of the openings disclosed in Ott's are staggered. The openings in Ott's appear to be aligned in all of Ott's Figures. No explicit or implicit suggestion can be found to use staggered rows of slots. Since, the combination of Bruce, Clement and Ott's fails to teach or suggest the Applicant's invention as claimed, the combination does not render obvious the Applicant's claimed invention. Therefore, withdrawal of this rejection is respectfully requested.

Claim 14 are rejected under 35 U.S.C. § 103 as unpatentable over Bruce and Clement in further view of Davis, Reusable Cannula with Disposable Seal, U.S. Patent 6,159,182 (Dec. 12,

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2000) under the assertion that Bruce and Clement teach or suggest the Applicant's claimed invention except for use of a duckbill valve and Davis teaches use of a Duckbill valve. The Applicant respectfully traverses this rejection.

The Combination of Bruce, Clement and Davis fails to teach or suggest the use of slots that are narrower in a first direction as compared to a second direction. The combination also fails to teach or suggest the use of staggered rows. In contrast, the Applicant now claims slots that are narrower in a first direction as compared to a second direction. Furthermore, the Applicant claims that the rows are staggered. None of the openings disclosed in the combination of Bruce, Clement and Davis are staggered. Since, the combination of Bruce, Clement and Davis fails to teach or suggest the Applicant's invention as claimed, the combination does not render obvious the Applicant's claimed invention. Therefore, withdrawal of this rejection is respectfully requested.

Conclusion

This response has addressed all of the Examiner's grounds for rejection. The rejections based on prior art have been traversed. Reconsideration of the rejections and allowance of the claims is requested.

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By: 

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